

REMARKS

The acknowledgment of the claim for foreign priority under 35 U.S.C. §119 and receipt of the priority document is noted with appreciation. However, it is noted that on the Office Action Summary sheet, the Examiner has checked that only “some” of the certified copies of the priority document have been received. A single certified copy of Japanese Application 11-198820 filed July 13, 1999, was filed and, therefore, it is believed that the Examiner should have checked that “all” of the certified copies of the priority document have been received. Correction is respectfully requested.

The acceptance of the drawings filed with the application by the Examiner is noted with appreciation.

The indication that the information disclosure statements filed on November 9, 2000, November 30, 2000, and December 19, 2002, are in compliance with the provisions of 37 C.F.R. §§1.97 and 1.98 and MPEP 609 is also noted with appreciation.

The specification has been amended to be amended to change the terms “sentence” and “sentences” to –document– and –documents–, respectively. The error was a translation error. Support for the correct terms is found in the specification as filed at, for example, page 5 et seq. It will be recognized that the invention is directed to the storage and retrieval of documents as stated, for example on page 1, lines 10 to 13. In addition, minor amendments have been made to page 5 of the specification to supply definitions for acronyms. No new matter has been added.

Claims 2 to 8 now appear in the application. Claims 2, 3, 5, and 6 have been amended to be in independent form, incorporating the limitations of original claim 1 on which they were dependent. Claim 1 has, therefore, been canceled. Claim 4 has been amended to be dependent on claim 2, and new claim 8, similar to claim 4, as been added but dependent on claim 3. In addition, the claims have been amended, consistent with the amendments to the specification, to change the terms “sentence” and “structured sentence” to –document– and –structured document–, respectively.

The disclosed and claimed invention is directed to an information retrieval apparatus having a data monitoring and content judging means for monitoring a document retrieved from a database and inferring a field which the said document belongs to, and a retrieval screen generating means for generating a retrieval screen for allowing a user to perform a retrieval operation taking the inferred field as an object of retrieval and outputting the retrieval screen as data to be displayed together with said retrieved document.

The embodiment shown in Fig. 1 comprises an input/output device 100 capable of inputting a retrieval condition and the like and displaying a result of retrieval, a database 200 containing a document to be an object of retrieval, and an information retrieval apparatus 300 for providing an exact retrieval function meeting a retriever's intention. The information retrieval apparatus 300 is provided with a data monitoring portion 310 for monitoring data sent by the database 200 to the input/output device 100, the data being data of a document to be an object of retrieval requested by a user using the input/output device 100, a content judging portion 320 for identifying the kind of a content by referring to the content of the data and determining whether or not a retrieval screen is to be generated, and a retrieval screen generating portion 330 for generating a retrieval screen adaptive to the content. A user requests a document to be an object of retrieval from the database 200, using the input/output device 100. The database 200 communicates a document to be an object of retrieval requested by the user to the input/output device 100 through a network communication and the like. The data monitoring portion 310 of the information retrieval apparatus 300 monitors communication of the document to be an object of retrieval from this database 200 to the input/output device, obtains this document, and notifies the content judging portion 320 of this fact. The content judging portion 320 analyzes the content of this document and judges whether or not there is the possibility that the user requests retrieval. In case that the content judging portion 320 has judged that there is the possibility that the user requests a retrieval, the retrieval screen generating portion 330 sends data for retrieval to the input/output device 100. A retrieval screen generated by the retrieval screen-generating device 100. A retrieval screen generated by the retrieval screen-generating portion 330 has a

function for performing retrieval on the database 200. Since a retrieval screen capable of retrieving a document related to a document to be an object of retrieval spontaneously requested by a user is generated and provided to the user, the user does not need to search another document to be an object of retrieval or input detailed retrieval conditions for the retrieval, thereby reducing a burden of retrieval on the user to a necessary minimum.

In a specific example, various HTML documents on the Internet are stored in the database 200. Through a browser operating on the input/output device 100, a user can browse these WWW documents, and browse different documents one after another by referring to links contained in these documents. The browser on the input/output device 100 communicates with the database 200 through a network, and sends and receives a WWW document. A WWW document to be sent may be a reference of WWW documents of the database 200 or a retrieval request to the server of the database 200. A WWW document to be received is a WWW document itself of the database 200. However, it may be a WWW document originally existing in the database 200 or a WWW document dynamically produced by the server of the database 200.

Claims 1 to 7 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,035,338 to Hirakawa et al. This rejection is respectfully traversed for the reason that the patent to Hirakawa et al. does not show all the features of the claimed invention. Moreover, Hirakawa et al. do not suggest the claimed invention.

Hirakawa et al. disclose a document browse support system for application in a document browsing system for browsing through documents on a computer network. The document browse support system uses a data describing at least one expression pattern in a document and information associated with output information which is to be obtained and which corresponds to the expression pattern. The support system shown in Fig. 1 comprises a network input/output section 101 with the function of retrieving data from a computer network 100 and transmitting data to the computer network 100, a data storage section 102 with the function of storing various data items, a data output section 103 that includes display means, such as a CRT display or a liquid-crystal display, and has the

function of presenting various pieces of information to the user, a user data input section 104 that allows the user to enter the desired data, and a control section 105 that controls these network input/output section 101, data storage section 102, data output section 103, and user data input section 104.

Hirakawa et al. disclose a system in which, when an expression pattern is sensed in a Web page, a process corresponding to the expression pattern is executed. For instance, when an expression pattern “Why don’t you” is sensed in a Web page describing an English-Japanese dictionary and examples, it makes Web pages describing a Japanese-language translation and examples be able to be accessed. (Col. 5, line 4 et seq.) In another instance, there is a term “Tasuba” in a Web page, it can be seen a list of Web pages in which the term is included. (Col. 10, lines 16 et seq.)

On the contrary, the claimed invention is to display a list of Web pages the kind or field of which is the same as that of the Web page being browsed or to retrieve some Web pages which include a keyword from the same kind of Web pages.

The prior art as disclosed by Hirakawa et al. is to sense an expression pattern for each sentence admitting differences of sentence structure and to execute a process indicated by that pattern.

On the contrary, the disclosed and claimed invention lists documents which belong to the same kind or field as a whole and to display a list screen or retrieval screen. Fig. 2 shows an example of a WWW document requested by a user. This example is a display example by a browser, and data actually sent from the database 200 to the browser are text data as shown in Fig. 3. The WWW document of Fig. 2 is a document describing present information. Text data (Fig. 3) of a WWW document sent from the database 200 to the browser are monitored by the data monitoring portion 310. When the data monitoring portion 310 knows that text data of a WWW document directed to a browser have been sent, the data monitoring portion 310 monitors and sends these data to the content judging portion 320. The content judging portion 320 infers from these data a field, which this WWW document belongs to. Inference of a field can be performed on the basis of a character string in text data of a WWW document and the number of

links. In case of judging that a WWW document belongs to either of the objective fields, the content judging portion 320 notifies the retrieval screen-generating portion 330 of that field. The retrieval screen-generating portion 330 generates a screen for retrieval using a template prepared in advance (Fig. 4). Items %1 and %3 vary depending upon objective fields, and for example in case of “present information”, they are displayed as shown in Fig. 5. The retrieval screen generating portion 330 embeds text data generated like Fig. 5 into data sent from the database 200 to a browser 150, namely, text data of a WWW document which is monitored by the data monitoring portion 310 and is judged as “present information” by the content judging portion 320. The data having a template embedded is sent to the browser in the same way as data sent to the browser by the database 200.

Fig. 7 shows an example of information displayed on the browser by the retrieval screen-generating portion 330 on the basis of the information sent to the browser. A screen to be originally displayed like Fig. 2 by the browser is modified like Fig. 6 by the information retrieval apparatus 300. Here a method in which the retrieval screen-generating portion 330 embeds a template into an original document is shown, but there is also a method of sending only a template to the browser as separate data without embedding the template. Fig. 7 shows a case where a template is not embedded but sent as separate data.

The term “structure” used in Hirakawa et al. means a structure of a sentence such as the active voice and the passive voice. The term “structure” used in this application means a structured document, such as HTML, which includes a plurality of sentences and their meaning or expressive structure. The “field” shown in Hirakawa et al. is a content field which is displayed when the sentence is sensed. On the contrary, the “field” used in this application means a kind or subject in which the document belongs.

Claim 2 recites an information retrieval apparatus which comprises “a data monitoring and content judging means for monitoring a document retrieved from a database in inferring a field which this document belongs to” and “a retrieval screen generating means for generating a retrieval screen for a user to perform a retrieval operation taking the inferred field as an object of retrieval and outputting the retrieval screen as data to be displayed together with said retrieved document”.

According to claim 2, “*a document retrieved from said database is a structured document*” and “*said retrieval screen is a screen of a structured document in which screen a retrieval part is embedded in the retrieved structured document and a user can retrieve*” (emphasis added).

Claim 4 is now dependent on claim 2 and recites “output of said retrieval screen generating means is supplied to an input/output means *for retrieving and displaying a document stored in said database*” and “*said input/output means displays a retrieval screen outputted by said retrieval screen generating means and retrieves again another document stored in said database by a retrieval operation performed by a user according to this retrieval screen*” (emphasis added).

Claim 3 recites an information retrieval apparatus which comprises “a data monitoring and content judging means for monitoring a document retrieved from a database in inferring a field which this document belongs to” and “a retrieval screen generating means for generating a retrieval screen for a user to perform a retrieval operation taking the inferred field as an object of retrieval and outputting the retrieval screen as data to be displayed together with said retrieved document”. Claim 3 further recites that “*a document retrieved from said database is a structured document*” and “*said retrieval screen is a screen of a structured document in which a retrieval part is separate from the retrieved structured document and a user can retrieve*” (emphasis added).

New claim 8 is like claim 4, described above, but dependent on claim 3.

Claim 5 recites an information retrieval apparatus which comprises “a data monitoring and content judging means for monitoring a document retrieved from a database in inferring a field which this document belongs to” and “a retrieval screen generating means for generating a retrieval screen for a user to perform a retrieval operation taking the inferred field as an object of retrieval and outputting the retrieval screen as data to be displayed together with said retrieved document”. Claim 5 further recites that “*a document retrieved from said database is a structured document*” and “*said data monitoring and content judging means infers a field which the structured document belongs to, using as a criterion of judgement either one or both of the content of text data contained in the structured*”

document and the number of links” (emphasis added).

Claim 6 recites an information retrieval apparatus which comprises “a data monitoring and content judging means for monitoring a document retrieved from a database in inferring a field which this document belongs to” and “a retrieval screen generating means for generating a retrieval screen for a user to perform a retrieval operation taking the inferred field as an object of retrieval and outputting the retrieval screen as data to be displayed together with said retrieved document”.

Claim 6 further recites that “*a document retrieved from said database is given in advance the information for identifying its field*” and “*said data monitoring and content judging means notifies said retrieval screen generating means of a field represented by said identifying information*” (emphasis added).

Claim 7 recites a recording medium having an information retrieval program stored in it. This program makes “a computer realize a data monitoring and content judging function for monitoring the content of a document retrieved by an input/output device capable of retrieving a document stored in a database and for inferring a field which said document belongs to, and *a retrieval screen generating function for generating a retrieval function taking the inferred field as an object of retrieval and providing the retrieval function generated to said input/output device*” (emphasis added).

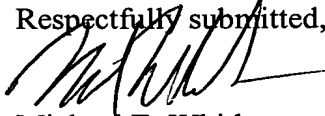
It is submitted that the patent to Hirakawa et al. fails to show or suggest the invention as now specifically claimed.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 2 to 8 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,



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